

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 235 AND RUE PURCHASE /BUCK HEWITT ROADS IN ST.MARY'S COUNTY. MD 235 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR NORTHBOUND AND SOUTHBOUND MD 235. SIDE STREET TRAFFIC MOVEMENTS WILL NOT BE SIGNAL CONTROLLED. VIDEO DETECTION WILL BE USED.

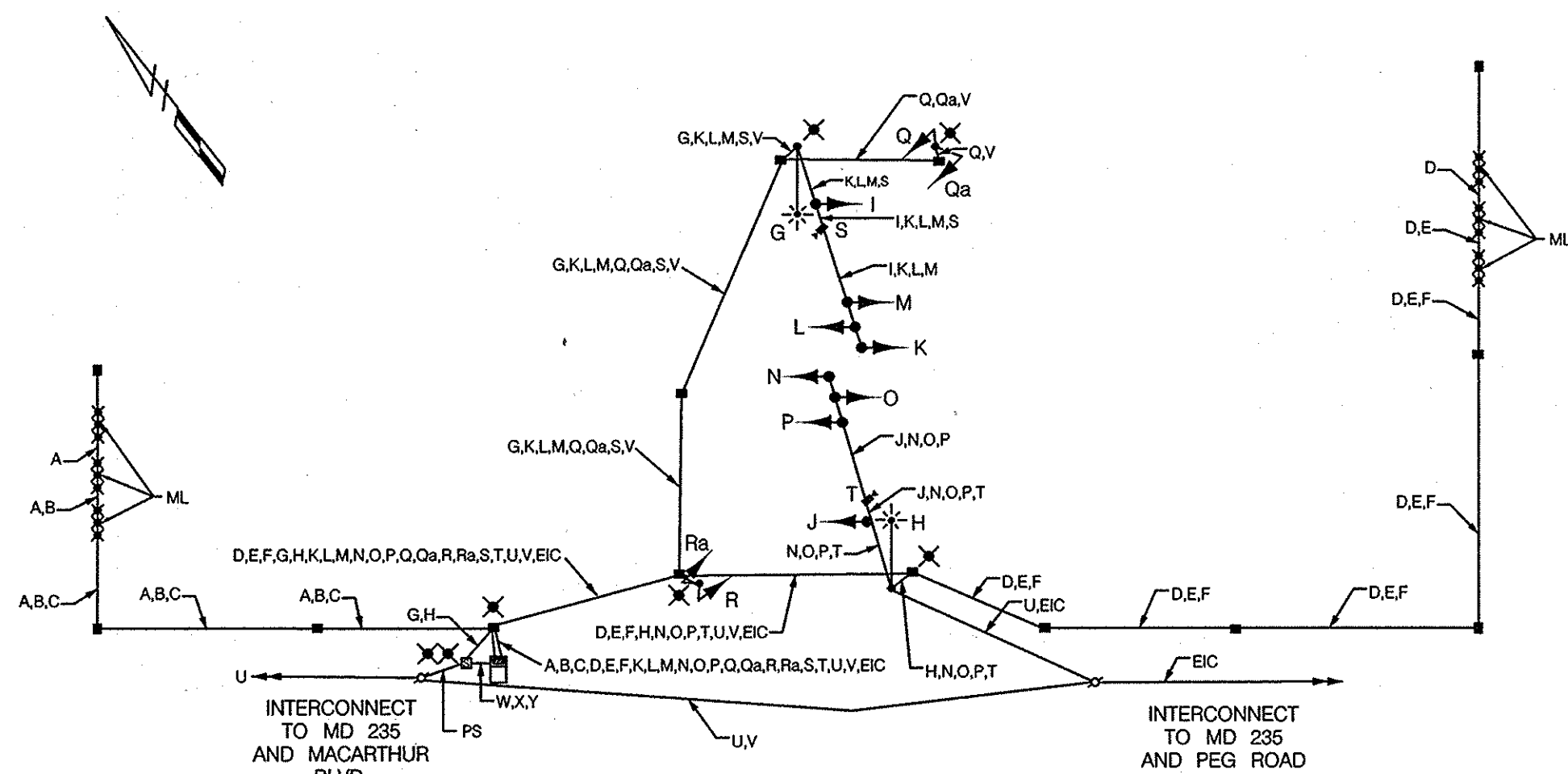
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

WIRING DIAGRAM



NOTE:

- NEW INTERCONNECT CABLE SHALL BE INSTALLED BETWEEN THE NEW CONTROLLER AND THE EXISTING CONTROLLER AT MD 235 AND MACARTHUR BLVD.
- THE EXISTING INTERCONNECT FROM THE CONTROLLER AT MD 235 AND PEG ROAD WILL BE USED AND RE-ROUTED TO THE NEW CONTROLLER

WIRING KEY

A-F	MICRO-LOOP PROBE LEAD-IN
G-H	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
I-J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K-R	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
S-T	VIDEO DETECTION CABLE
U	12-PAIR VOICE GRADE INTERCONNECT CABLE
V	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
W-Y	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
EIC	EXISTING INTERCONNECT CABLE
ML	MICRO-LOOP PROBE
PS	PROPOSED ELECTRIC SERVICE GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
5 CY	TEST PIT EXCAVATION
10 EA	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING "SHARK TEETH"
60 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
36 EA	12 INCH LED SIGNAL HEAD SECTION
2 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
2 EA	BREAKAWAY PEDESTAL POLE
2 EA	MAST ARM POLE & 60 FT. MAST ARM
6 EA	NONINVASIVE MICRO-LOOP PROBE
2 EA	VIDEO DETECTION CAMERA AND CABLE
2050 LF	REMOVE EXISTING AND INSTALL NEW 12-PAIR COMMUNICATION CABLE
250 LF	DISCONNECT, PULL BACK AND REROUTE CABLE
210 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
510 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
240 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
70 LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.
325 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
1 EA	METERED SERVICE PEDESTAL EMBEDDED
50 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN /THWN
14 EA	ELECTRICAL HANDHOLE
60 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO 14 AWG)
1910 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO 14 AWG)
450 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO 12 AWG)
1 EA	CONTROLLER AND CABINET - BASE MOUNT
18 CY	CONCRETE FOUNDATION FOR SIGNAL
1 EA	VIDEO INTERFACE EQUIPMENT
7 EA	34 IN. X 10 FT. GROUND ROD
2 EA	D3-2 (VAR X 16") DUAL FACE SIGN - MAST ARM MOUNT
2 EA	FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
25 LF	W3-3 SIGN (48" X 48") WITH "NEW" PANEL (30" X 30") - GROUND MOUNT
210 LF	2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
60 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
64 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
4 EA	W6x9 STEEL SIGN SUPPORTS
180 SF	BREAKAWAY BASE SUPPORT SYSTEM FOR W6x9 STEEL SUPPORT BEAMS
	DETECTABLE WARNING SURFACE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 841-1003	MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002
--	--

MR. JOE HORTY
UTILITY ENGINEER
(410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

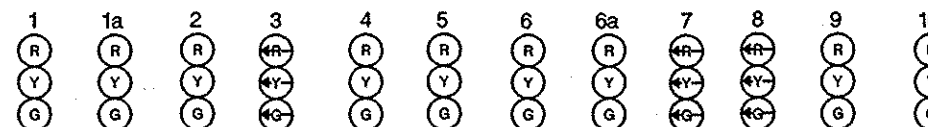
MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
--	--

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

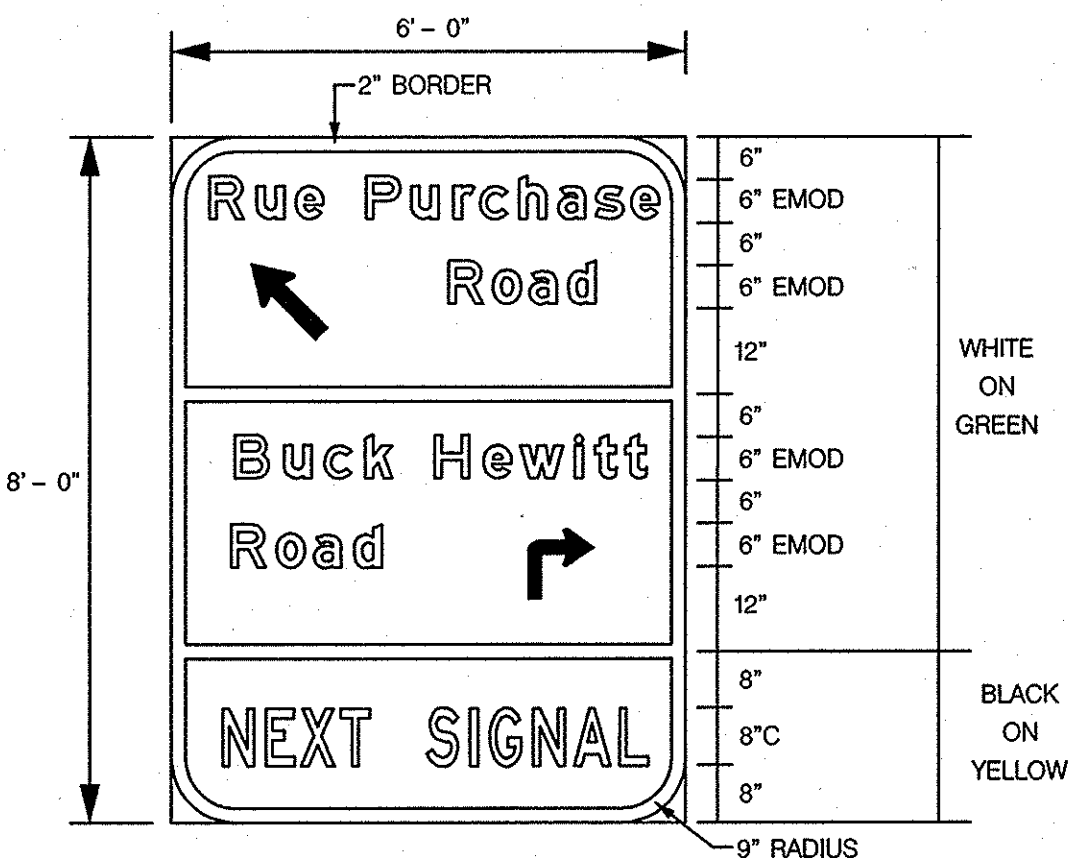
MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

PHASE CHART

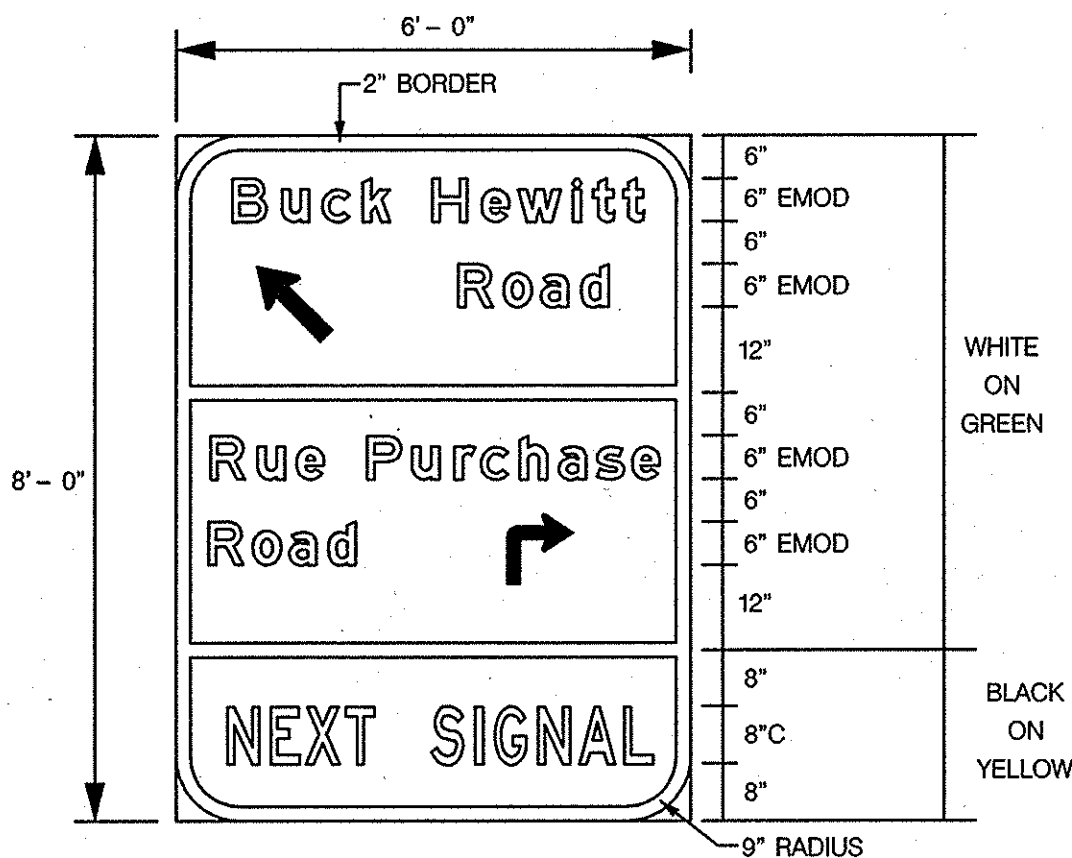


PHASE 1 & 5	G	G	G	←G	R	R	G	G	←G	←G	R	R	
1 & 5 CHANGE													
PHASE 1 & 6	G	G	G	←G	G	G	R	R	←R	←R	R	R	
1 & 6 CHANGE	Y	Y	Y	←Y	G	G	R	R	←R	←R	R	R	
PHASE 2 & 5	R	R	R	←R	R	R	G	G	←G	←G	G	G	
2 & 5 CHANGE	R	R	R	←R	R	R	Y	Y	←Y	←Y	G	G	
PHASE 2 & 6	R	R	R	←R	G	G	R	R	←R	←R	G	G	
2 & 6 CHANGE	R	R	R	←R	Y	Y	R	R	←R	←R	Y	Y	
FLASHING OPERATION	FLR	FLR	FLR	FLR	FLR	FLY	FLY	FLY	FLY	FLR	FLY	FLY	

SIGN LAYOUT SIGN NO. 13



SIGN LAYOUT SIGN NO. 15



TRAFFIC **C**ONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473
EMAIL TRAFFIC@TRAFFIC-CONCEPTS.COM

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN
MD 235 AND RUE PURCHASE /
BUCK HEWITT ROADS

SCALE	NONE	DATE	12-5-07	CONTRACT NO.	BW996M82
DESIGNED BY	T. ZAYDEL	COUNTY	ST. MARY'S		
DRAWN BY	T. ZAYDEL	LOGMILE	1823514.003		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	I-495		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS-4623 GI	SHEET NO.	2	OF	2